

WHAT IS CLAIMED IS:

1. A system comprising:

a terminal capable of communicating at least one of within and across at least one network, wherein the terminal is included within an organization including a plurality of terminals, at least one terminal having at least one characteristic and being at at least one of a plurality of positions within the organization;

a secondary certification authority (CA) capable of providing at least one role certificate to the terminal based upon the at least one position of the terminal within the organization, wherein the organization includes a plurality of secondary CA's capable of issuing at least one role certificate to respective groups of terminals of the organization;

a tertiary CA capable of providing at least one permission certificate to the terminal based upon the at least one characteristic of the terminal that is located at a position within the organization, wherein the organization includes a plurality of tertiary CA's capable of issuing at least one permission certificate to respective sub-groups of terminals of the organization; and

a server capable of authenticating the terminal based upon an identity certificate, the at least one role certificate and the at least one permission certificate of the terminal to thereby determine whether to grant the terminal access to at least one resource of the server.

2. A system according to Claim 1, wherein the terminal comprises a terminal included within an organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at one of a plurality of positions comprising a plurality of service plans offered by the cellular network operator, and wherein at least one terminal has at least one characteristic comprising at least one optional service offered by the cellular network operator.

3. A system according to Claim 1, wherein the terminal comprises a terminal included within an organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at at least one of a plurality of positions comprising a plurality of services offered by the cellular network operator, and

wherein at least one terminal has at least one characteristic comprising at least one optional service offered by the cellular network operator.

4. A system according to Claim 1, wherein the tertiary CA is capable of  
5 providing at least one permission certificate each having an associated validity time no greater than a validity time of the at least one role certificate provided by the secondary CA, and no greater than a validity time of the identity certificate.

5. A system according to Claim 4, wherein the server is capable of  
10 authenticating the terminal based upon the validity times of the identity certificate, at least one role certificate and at least one permission certificate of the respective terminal.

6. A system according to Claim 1, wherein the terminal is capable of  
requesting access to at least one resource of a server before the server authenticates the  
15 terminal, and wherein the server is capable of granting access to the at least one resource if the terminal is authenticated.

7. A method of authenticating a terminal comprising:  
providing a terminal capable of communicating at least one of within and across  
20 at least one network, wherein the terminal is included within an organization including a plurality of terminals, at least one terminal having at least one characteristic and being at at least one of a plurality of positions within the organization;  
providing at least one role certificate to the terminal from a secondary certification authority (CA) based upon the at least one position of the terminal within the  
25 organization, wherein the organization includes a plurality of secondary CA's capable of issuing at least one role certificate to respective groups of terminals of the organization;  
providing at least one permission certificate to the terminal from a tertiary CA based upon the at least one characteristic of the terminal located at a position within the organization, wherein the organization includes a plurality of tertiary CA's capable of  
30 issuing at least one permission certificate to respective sub-groups of terminals of the organization; and

authenticating the terminal at a server based upon an identity certificate, the at least one role certificate and the at least one permission certificate of the terminal to thereby determine whether to grant the terminal access to at least one resource of the server.

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8. A method according to Claim 7, wherein providing a terminal comprises providing a terminal included within an organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at one of a plurality of positions comprising a plurality of service plans offered by the cellular network operator, and wherein at least one terminal has at least one characteristic comprising at least one optional service offered by the cellular network operator.

9. A method according to Claim 7, wherein providing a terminal comprises providing a terminal included within an organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at at least one of a plurality of positions comprising a plurality of services offered by the cellular network operator, and wherein at least one terminal has at least one characteristic comprising at least one optional service offered by the cellular network operator.

10. A method according to Claim 7, wherein providing at least one permission certificate comprises providing at least one permission certificate each having an associated validity time no greater than a validity time of the at least one role certificate, and no greater than a validity time of the identity certificate.

11. A method according to Claim 10, wherein authenticating the terminal comprises authenticating the terminal based upon the validity times of the identity certificate, at least one role certificate and at least one permission certificate of the respective terminal.

12. A method according to Claim 7 further comprising:

requesting, from the terminal, access to at least one resource of a server before authenticating the terminal; and  
granting access to the at least one resource if the terminal is authenticated.

- 5           13.     A terminal included within an organization including a plurality of terminals, each terminal having at least one characteristic and being at at least one of a plurality of positions within the organization, the terminal comprising:
- a controller capable of communicating at least one of within and across at least one network, wherein the controller is capable of obtaining at least one role certificate  
10     from a secondary certification authority (CA) based upon the at least one position of the terminal within the organization and at least one permission certificate from a tertiary CA based upon the at least one characteristic of the terminal that is located at a position within the organization, wherein the organization includes a plurality of secondary CA's capable of issuing at least one role certificate to respective groups of terminals of the  
15     organization, and wherein the organization includes a plurality of tertiary CA's capable of issuing at least one permission certificate to respective sub-groups of terminals of the organization; and
- a memory capable of storing an identity certificate, at least one role certificate and at least one permission certificate,
- 20     wherein the controller is also capable of communicating with a server such that the server is capable of authenticating the terminal based upon the identity certificate, the at least one role certificate and the at least one permission certificate of the terminal to thereby determine whether to grant the terminal access to at least one resource of the server.

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14.     A terminal according to Claim 13, wherein the controller is capable of obtaining at least one role certificate from a secondary CA capable of issuing at least one role certificate to each terminal of the organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at one  
30     of a plurality of positions comprising a plurality of service plans offered by the cellular network operator, and wherein the controller is capable of obtaining at least one

permission certificate based upon at least one characteristic comprising at least one optional service offered by the cellular network operator.

15. A terminal according to Claim 13, wherein the controller is capable of  
5 obtaining at least one role certificate from a secondary CA capable of issuing at least one role certificate to each terminal of the organization comprising a customer base of a cellular service provider that includes a plurality of terminals, each terminal being at least one of a plurality of positions comprising a plurality of services offered by the cellular network operator, and wherein the controller is capable of obtaining at least one  
10 permission certificate based upon at least one characteristic comprising at least one optional service offered by the cellular network operator.

16. A terminal according to Claim 13, wherein the controller is capable of obtaining at least one permission certificate each having an associated validity time no  
15 greater than a validity time of the at least one role certificate obtained by the controller, and no greater than a validity time of the identity certificate.

17. A terminal according to Claim 16, wherein the controller is also capable of communicating with a server such that the server is capable of authenticating the terminal  
20 based upon the validity times of the identity certificate, at least one role certificate and at least one permission certificate of the respective terminal.

18. A terminal according to Claim 13, wherein the controller is capable of requesting access to at least one resource of a server before the server authenticates the  
25 terminal such that the server is capable of granting access to the at least one resource if the terminal is authenticated.